

APEGA Concludes Practice Review on City of Calgary Following 2024 Critical Water Main Rupture

EDMONTON – The Association of Professional Engineers and Geoscientists of Alberta (APEGA) has concluded the practice review on the City of Calgary after the critical rupture of the Bears paw South water main in June 2024. The review was initiated on July 22, 2024, and the final report was delivered to the City of Calgary on May 7, 2025.

Completion of the practice review means APEGA has assessed the city’s engineering management processes and its alignment with the *Engineering and Geoscience Professions (EGP) Act*, the *General Regulation*, and APEGA’s bylaws and practice standards. If during a practice review unskilled practice or unprofessional conduct were to be suspected or found in engineering or geoscience practices, APEGA would launch a formal investigation.

In relation to the city’s water-distribution network and the Bears paw South water main, the practice review found the City of Calgary had sound engineering oversight and the appropriate risk-based management in place to meet the expectations required of an APEGA permit holder and was in compliance with its obligations under the EGP Act, the *General Regulation*, and APEGA’s bylaws and practice standards. No indications of unskilled practice or unprofessional conduct were found during the practice review.

The practice review included a high-level literature review to provide context on the magnitude and mechanisms of prestressed concrete cylinder pipe (PCCP) failures. At the time of installation, in 1974, the feeder main was reportedly expected to have a 100-year service life. However, PCCP-manufacturing standards were relaxed from the late 1960s to the early 1970s by the American Water Works Association, resulting in a high rate of premature failures, and standards have since been strengthened.

The conclusions of the [City of Calgary’s forensic investigation](#) into the Bears paw South rupture, which was conducted by Associated Engineering, are consistent with PCCP failures across North America. PCCPs generally fail in the same way, and such failures are common. APEGA’s literature review also acknowledges that preventing a PCCP rupture is not assured, even with monitoring and predictive technologies in place.

For more information about the practice review process, including the Graduated Risk Assessment for Permit Holders, please see APEGA’s [2024 annual report](#).

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ABOUT APEGA

APEGA is the regulator of engineering and geoscience in Alberta, safeguarding the public by enforcing professional and ethical standards. Our licensed professionals and permit-holding companies sustain a century-long legacy of innovation and economic growth in our province, inspiring the next generation of engineers and geoscientists.

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